

0000012449

FORRES. CONTROL  
OUTGOING LTR NO.

IE ORDER#

93 RF/13605

## EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.

ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

DIST.	LTR	ENC
ARAL, M.E.		
NEDETTI, R.L.		
ENJAMIN, A.		
ERMAN, H.S.		
ANCH, D.B.		
ARNIVAL, G.J.		
OPP, R.D.		
AVIS, J.G.		
ERRERA, D.W.		
ANNI, B.J.		
ARMAN, L.K.		
EALY, T.J.		
EDAH, T.		
LBIG, J.G.		
JTCHINS, N.M.	✓	✓
EBY, W.A.		
JESTER, A.W.		
AHAFFEY, J.W.		
ANN, H.P.		
ARX, G.E.		
CDONALD, M.M.		
CKENNA, F.G.		
ONTROSE, J.K.		
ORGAN, R.V.		
OTTER, G.L.		
IZZUTO, V.M.		
ISING, T.L.		
ANDLIN, N.B.		
ETLOCK, G.H.		
TEWART, D.L.		
ULLIVAN, M.T.		
WANSON, E.R.		
ILKINSON, R.B.		
ILLIAMS, S.(ORC)		
ILSON, J.M.		
YANT, R.D.		
Jusko, W.	✓	✓
Primrose, A.	✓	✓
Nadel, P.	✓	✓
Laurin, P.	✓	✓
FORRES. CONTROL	X	X
DMN RECORD/0802	✓	✓
ATS/T130G		
RAFFIC		

November 2, 1993

93-RF-13605

Scott R. Grace  
OU 2 Project Manager  
Environmental Restoration Division  
DOE, RFO

### RESULTS FROM SURFACE WATER LOCATION SW-132 - ALP-046-93

Enclosed are the results from Surface Water Location SW-132, collected for a 14-day period from September 7, 1993, through September 20, 1993. The results presented are from analytes for which Applicable or Relevant and Appropriate Requirements (ARARs) have been established. The daily sampling was performed in response to the sampling discrepancy with the location of SW-132 at Operable Unit (OU) 2.

The data obtained from the 14 days of sampling from the culvert that drains into South Walnut Creek are not significantly different from the data for SW-132, presented in the OU 2 South Walnut Creek Interim Measure/Interim Remedial Action Draft Treatability Study Report. Please note the following items:

- The only analytes with average concentrations above ARARs were Aluminum and Zinc.
- There were three dates when Am<sup>241</sup> concentrations were above ARARs. These dates corresponded to dates when Al, Fe, Pb and Zn were above ARARs. Storm events occurred on these dates and surface water flow rates were increased.
- The volatile organic compounds (VOCs) analytes chloroform, tetrachloroethene and vinyl chloride were analyzed by CLP-methods with detection limits that were above ARARs.

The conclusions presented in the report are valid with respect to the discontinuation of collection and treatment of Surface Water Location SW-132.

#### CLASSIFICATION:

ICNI		
INCLASSIFIED		
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER  
SIGNATURE

DOCUMENT CLASSIFICATION  
DATE REVIEW WAIVER PER  
CLASSIFICATION OFFICE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS

☐ PARTIAL/OPEN  
☒ CLOSED

LTR APPROVALS:

ALP: AWP  
ORIG & TYPIST INITIALS  
ALP dgl

ADMIN RECORD

BZ -A-00064

Scott R. Grace  
November 2, 1993  
93-RF-13605  
Page 2

If you have any questions regarding this matter, please contact Annette Primrose of Remediation Project Management at extension 8618, or Robin Madel of Environmental Engineering and Technology at extension 6972.



A. L. Primrose  
OU 2 Project Manager  
ERM/Remediation Project Management

dql

Orig. and 1 cc - S. R. Grace

Attachments:  
As Stated

cc:  
E. A. Dillé - DOE, RFO

Surface Water Sampling at the Culvert at South Walnut Creek (formerly SW-132)

VOLATILE ORGANIC CARBONS

UNITS	1,1-DCE ug/L	qualifier	CHLOROFORM ug/L	qualifier	CARBON TET. ug/L	qualifier	POE ug/L	qualifier	TDE ug/L	qualifier	VIN. CHLOR. ug/L	qualifier
ARAR	7		1		5		1		5		2	
DET. LIMIT	5		5		5		5		5		10	
DATE												
9/7/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/8/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/9/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/10/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/11/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/12/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/13/93	2.5	U	2.5	U	2.5	U	1.0	U	2.5	U	5.0	U
9/14/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/15/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/16/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/17/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/18/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/19/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
9/20/93	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	5.0	U
average values	2.5		2.5		2.5		2.4		2.5		5	

Note: non-detects are listed at one-half detection limit

U = non-detect

J = value shown is from instrument detection limit, not contract laboratory detection limit

B = analyte was present in laboratory blank sample

Surface Water Sampling at the Culvert at South Walnut Creek (formerly SW-132)

RADIONUCLIDES

UNITS	GROSS ALPHA		GROSS BETA		PU-239		AM-241		STRONTIUM		U-TOTAL	
	pCi/L		pCi/L		pCi/L		pCi/L		pCi/L		pCi/L	
APAR	11		19		0.05		0.05		8		10	
DET. LIMIT	N/R		N/R		N/R		N/R		N/R		N/R	
DATE												
9/7/93	N/R		N/R		0.0170		0.0150		0.2390		4.2250	
9/8/93	4.7870		3.4330		0.0020		0.1490		0.0800		5.3960	
9/9/93	3.5700		4.0140		0.0080		0.0070		-0.0130		6.2690	
9/10/93	4.6980		2.5070		0.0070		0.0040		0.2570		6.9130	
9/11/93	3.3150		4.9930		0.0070		0.0000		0.1330		7.3050	
9/12/93	2.4810		2.6020		0.0026		0.0090		0.0710		7.5400	
9/13/93	5.2680		9.6400		0.0450		0.0520		0.0460		0.8570	
9/14/93	2.3750		3.7390		0.0110		0.0040		0.1640		4.4560	
9/15/93	5.2330		5.3420		0.0130		0.0140		0.2040		5.9970	
9/16/93	5.1350		4.0500		N/R		0.0020		0.1750		7.3050	
9/17/93	3.7830		5.1400		0.0090		0.0040		0.0300		7.9580	
9/18/93	2.6250		6.0110		0.0260		0.0310		-0.0150		3.8250	
9/19/93	3.7580		4.5370		0.0060		0.2670		0.1410		5.4530	
9/20/93	3.0770		4.0230		0.0090		0.0480		0.0930		6.6590	
average values	3.8542		4.6178		0.0125		0.0433		0.1146		5.7256	

N/R = not received

Surface Water Sampling at the Culvert at South Walnut Creek (formerly SW-132)

DISSOLVED METALS

IRON		MANGANESE	
UNITS	ug/L	ug/L	
ARAR	300	50	
DET. LIMIT	N/R	N/R	
DATE	CONC'N	QUALIFIER	CONC'N
9/7/93	21.3	B	8.5
9/8/93	33.7	B	12.4
9/9/93	38.7	B	8.0
9/10/93	3.5	U	6.1
9/11/93	3.5	U	5.4
9/12/93	3.5	U	5.9
9/13/93	68.2	B	20.0
9/14/93	162.0	-	20.6
9/15/93	3.5	U	13.7
9/16/93	3.5	U	10.0
9/17/93	10.9	B	9.4
9/18/93	40.5	B	15.1
9/19/93	3.5	U	12.8
9/20/93	3.5	U	10.0
average values	28.56		11.28

Note: non-detects are listed at one-half detection limit

U = non-detect

J = value shown is from instrument detection limit, not contract laboratory detection limit

B = analyte was present in laboratory blank sample

Surface Water Sampling at the Culvert at South Walnut Creek (formerly SW-132)

TOTAL METALS

UNITS	ALUMINUM ug/L	ARSENIC ug/L	BARIUM ug/L	BERYLLIUM ug/L	CADMIUM ug/L	CHROMIUM ug/L	COPPER ug/L
APAR	240	50	1000	100	<5	10	25
DET. LIMIT	N/R	N/R	N/R	N/R	N/R	N/R	N/R
DATE							
9/7/93	466	-	93.8	0.5	U	1.5	5.8
9/8/93	93.6	B	105	0.5	U	1.5	2.6
9/9/93	7.5	U	119	0.5	U	1.5	1
9/10/93	97.4	B	118	0.5	U	1.5	1.3
9/11/93	36.4	B	125	0.5	U	1.5	1
9/12/93	27.5	B	129	0.5	U	1.5	1
9/13/93	2740	B	46.2	0.5	U	1.5	8.9
9/14/93	121	B	94.2	0.5	U	1.5	5.8
9/15/93	59.7	B	113	0.5	U	1.5	2.4
9/16/93	7.5	U	124	0.5	U	1.5	1
9/17/93	34.7	B	128	0.5	U	1.5	8.3
9/18/93	874	B	87	0.5	U	1.5	2.1
9/19/93	52.2	B	111	0.5	U	1.5	1
9/20/93	176	B	122	0.5	U	1.5	3.1
average values	342.4	2.4	108.2	0.5	2.0	1.5	

Note: non-detects are listed at one-half detection limit

U = non-detect

J = value shown is from instrument detection limit, not contract laboratory detection limit

B = analyte was present in laboratory blank sample

IRON ug/L 1000 N/R	LEAD ug/L 5 N/R	MANGANESE ug/L 1000 N/R	MERCURY ug/L 0.2 N/R	NICKEL ug/L 40 N/R	SELENIUM ug/L 10 N/R	ZINC ug/L 50 N/R
800	1.6	24.8	0.1	1.5	2.8	90.7
471	0.5	17.4	0.1	1.5	3.7	70.4
325	0.5	12.6	0.1	1.5	4.3	95.1
420	0.5	16.7	0.1	1.5	4.5	57.7
304	0.5	10.3	0.1	1.5	4.8	36.1
446	0.5	9.9	0.1	1.5	5.2	34.5
3700	7.2	139	0.1	1.5	0.5	194
522	1.1	25.2	0.1	1.5	2.5	82.2
510	0.5	18.9	0.1	1.5	3.4	80.8
254	0.5	11.7	0.1	1.5	3.5	33
333	0.5	13.1	0.1	1.5	3.7	31.4
1170	2.7	25.9	0.1	8.1	1.6	106
339	0.5	15.2	0.1	1.5	2.6	54.2
186	0.5	11.2	0.1	1.5	3.6	32.3
698.6	1.3	25.1	0.1	2.0	3.3	67.0